

REMARKS

Claim 2 is cancelled herein. Claims 1, 3-4, 12, 25, 37, and 44 are amended herein. Claims 1 and 3-53 are pending and under consideration.

The rejections under 35 U.S.C. §§102 and 103 are respectfully traversed.

Independent claim 1 recites heat radiating parts to which the metal wiring layers are connected which externally radiate some of the heat generated from the plural heaters through top surfaces thereof. The Examiner relies upon the lead 270 of Fasen as corresponding to the claimed heat radiating parts. However, there is no disclosure that the lead 270 radiates heat, and particularly no disclosure that the lead 270 radiates heat through a top surface thereof.

The lead 270 is illustrated schematically in Fig. 19 of the reference. Therefore, it cannot be determined in which direction any heat is radiated. Furthermore, it is noted that the reference does not disclose that heat is radiated. The lead 270 is connected to the second section 190 of the structure 182, however, no heat radiating function is disclosed.

Claim 10 depends from claim 1 and recites that the metal wiring layers absorb residual heat after the heaters are deactivated to decrease an amount of the residual heat transferred to the ink and to decrease a time required for the plural heaters to return to a ready state. Thus, the heaters are deactivated at a specific time. The Examiner relies upon column 11, lines 7-15 of the reference. This portion discloses that the conductive layer 181 over the layer 180 defeats the ability of the resistive material to generate heat. However, the heat blocking by the layer 181 occurs at all times.

Independent claim 12 recites the metal wiring layers radiate heat through top surfaces thereof. In contrast, the layers 180 and 181 of Fasen are covered by passivation layer 222 and cavitation layer 224 and therefore cannot radiate heat through top surfaces. Independent claims 25, 37 and 44 are similarly patentable over Fasen.

Independent claim 52 recites "pre-heat the ink proximate to the ink heating section" and independent claim 53 recites an ink pre-heating section. However, the Examiner has not addressed these features in the Office Action.

Cornell and Silverbrook do not overcome these deficiencies in Fasen and are not relied upon by the Examiner to do so.

Accordingly, withdrawal of the rejections is requested.

There being no further outstanding objections or rejections, it is submitted that the

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application is in condition for allowance. An early action to that effect is courteously solicited.

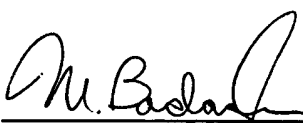
Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

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